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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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AMIN. TUROCY & CALVIN, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			EXAMINER VAN DOREN, BETH	
			ART UNIT 3623	PAPER NUMBER

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/620,771

Applicant(s)

MEREDITH ET AL.

Examiner

Beth Van Dorèn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40, 42-46 and 48-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40, 42-46 and 48-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. The following is a final office action in response to communications received 09/22/2006. Claims 1, 8, 11, 17-18, 20-21, 28-32, 38-40, 42-43, 46, and 48-51 have been amended. Claims 1-40, 42-46, and 48-52 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-40, 42-46, and 48-52 have been considered but are moot in view of the new grounds of rejection, as necessitated by amendment.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-22, 26, 28-40, 42-44, 46, and 48-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsu et al. (U.S. 5,581,691).

As per claim 11, Hsu et al. discloses a method of executing a schedule, the schedule comprising a schedule state, at least one transaction having a workflow action associated

therewith, the action having a latency attribute associated therewith, the method comprising:

initiating the workflow action according to the schedule (See column 3, lines 1-25, column 6, lines 20-35, column 8, lines 30-45; column 11, lines 33-62, column 12, lines 1-22, wherein workflow events are managed by the system and the actions of each event are instantiated when input event signals are received);

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comparing the latency attribute with a latency threshold (See column 3, lines 10-25, column 5, lines 23-30, 35-50, and 60-67, column 7, lines 50-60, column 8, lines 30-45, column 10, lines 5-20, column 11, lines 50-65, wherein actions within the workflow are created or instantiated only when a sufficient amount of signals are received to start such an action. Thus an attribute of the action (an input condition) is compared to a threshold of received signals);

selectively storing the schedule state in a storage medium based on the latency comparison (See column 3, lines 10-25, column 5, lines 9-15, column 13, lines 25-40 and 50-60, column 15, lines 5-15, wherein state and log information is stored in the system).

As per claim 12, Hsu et al. teaches creating an association between the stored schedule state and a signal (See column 3, lines 10-25, column 5, lines 23-30 and 60-67, column 8, lines 30-45, column 9, lines 10-25, wherein input conditions are defined and stored that represent the required input signals needed to cause the next step to occur. See also column 13, lines 25-40 and 50-60).

As per claim 13, Hsu et al. teaches suspending execution of the schedule based on the latency comparison (See column 3, lines 10-25, which discloses waiting to resume execution while waiting for an input. See also column 7, lines 54-56, which discloses timing out an execution).

As per claim 14, Hsu et al. teaches selectively de-allocating resources associated with the schedule after storing the schedule state in the storage medium (See column 5, lines 45-60, column 7, lines 25-55, column 12, lines 1-25, column 13, lines 10-15 and 50-65, wherein resources are dynamically allocated and wherein when an activity stops that is using the resource, it is de-allocated and available to another activity).

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As per claim 15, Hsu et al. teaches selectively resuming execution of the schedule based on the signal (See column 3, lines 10-25, where execution is resumed when the input is received. See also column 4, lines 60-67, column 5, lines 60-67, column 7, lines 5-20 and 54-56).

As per claim 16, Hsu et al. discloses selectively allocating computer system resources for execution of the schedule based on the signal (See column 5, lines 50-60, column 7, lines 25-40, wherein resources are dynamically allocated) and selectively resuming execution of the schedule based on the signal (See column 3, lines 10-25, where execution is resumed. See also column 4, lines 60-67, column 5, lines 60-67, column 7, lines 5-20 and 54-56).

As per claim 17, Hsu et al. teaches wherein the schedule includes a plurality of actions and at least one of the actions has an associated latency attribute (See column 3, lines 1-25, column 6, lines 20-35, column 8, lines 30-45, column 11, lines 33-65, column 12, wherein workflows include a plurality of actions. See also column 5, lines 23-30, 35-50, and 60-67, column 7, lines 50-60, column 10, lines 5-20, wherein input conditions (attributes) are associated with the actions that make up the workflow).

As per claim 18, Hsu et al. teaches wherein the latency attribute represents an estimated latency for completion of the associated action (See column 7, lines 8-24 and 54-56, and column 13, lines 23-40, wherein timeouts occur when an action surpasses an expected duration).

As per claim 19, Hsu et al. teaches adjusting at least one of the latency attributes according to a variable (See column 13, line 30-column 14, line 25, which discloses changing n attribute to reflect that it is completed).

As per claim 20, Hsu et al. teaches wherein the variable is related to an actual latency for completion of the associated workflow action (See column 13, line 30-column 14, line 25, wherein the variable of completion is related to the fact that the action has actually completed).

As per claim 21, Hsu et al. teaches wherein the latency attributes have a class associated therewith, and wherein the class indicates a group of actions (See column 3, lines 10-25, column 5, lines 23-30, 35-50, and 60-67, column 7, lines 50-60, column 8, lines 30-45, column 10, lines 5-20, column 11, lines 50-65, which discloses sets of latency attributes, like input and output conditions, time setting conditions, etc.).

As per claim 22, Hsu et al. teaches providing a plurality of latency thresholds, wherein each latency threshold has a class associated therewith, and selectively comparing a latency attribute with a latency threshold having the same class upon initiating the action associated with the latency attribute (See column 3, lines 10-25, column 5, lines 23-30, 35-50, and 60-67, column 7, lines 50-60, column 8, lines 30-45, column 10, lines 5-20, column 11, lines 50-65, wherein actions within the workflow are created or instantiated only when a sufficient amount of signals are received to start such an action. Thus an attribute of the action (an input condition) is compared to a threshold of received signals).

As per claim 26, Hsu et al. discloses selectively storing the schedule state in a database schema based on the latency comparison (See column 6, lines 20-37, which discloses a database schema. See column 3, lines 10-25, column 5, lines 9-15, column 13, lines 25-40 and 50-60, column 15, lines 5-15, wherein state and log information is stored in the system).

As per claim 28, Hsu et al. teaches wherein the workflow action has a compensation parameter associated therewith, further comprising selectively compensating the workflow action

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based on the compensation parameter, a transaction boundary within the schedule, and a state associated with another action within the schedule (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, wherein a workflow action is compensated).

As per claim 29, Hsu et al. teaches selectively compensating a first workflow action according to a transaction boundary within the schedule and a compensation parameter associated with the first workflow action, based on abortion of a second action within the schedule (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, wherein when a second action is aborted, the compensation routines are enacted).

Claims 1-6, 7-8, 9, and 10 recite equivalent limitations to claims 11-16, 19-20, 11, and 25, respectively, and are therefore rejected using the same art and rationale set forth above.

As per claim 30, Hsu et al. teaches a method of executing a schedule, the schedule comprising a schedule state, at least one transaction with a workflow action associated therewith, the method comprising:

initializing a workflow action within the schedule (See column 3, lines 1-25, column 6, lines 20-35, column 8, lines 30-45, column 11, lines 33-62, column 12, wherein workflow events are managed by the system and the actions of each event are instantiated when input event signals are received);

comparing a latency attribute associated with the workflow action and a latency threshold (See column 3, lines 10-25, column 5, lines 23-30, 35-50, and 60-67, column 7, lines 50-60, column 8, lines 30-45, column 10, lines 5-20, column 11, lines 50-65, wherein actions within the workflow are created or instantiated only when a sufficient amount of signals are received to

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start such an action. Thus an attribute of the action (an input condition) is compared to a threshold of received signals);

executing the action if the latency attribute does not exceed the latency threshold (See column 3, lines 10-25, column 5, lines 23-30, 35-50, and 60-67, column 7, lines 50-60, column 8, lines 30-45, column 10, lines 5-20, column 11, lines 50-65, wherein the action is executed as long as it does not exceed a threshold specifying a time to timeout);

dehydrating the schedule if the latency attribute exceeds the latency threshold (See column 3, lines 10-25, which discloses waiting to resume execution while waiting for an input. See also column 7, lines 54-56, which discloses timing out an execution).

As per claim 31, Hsu et al. teaches wherein dehydrating the schedule further comprises storing the schedule state to a storage medium, creating a proxy between the stored schedule state and a message, suspending execution of the schedule pending the expected workflow action, and restoring the schedule and resuming execution of the schedule based on receipt of the message (See column 3, lines 10-25, which discloses waiting to resume execution while waiting for an input. See also column 15, line 50-column 16, line 2 and lines 30-50. See also column 7, lines 54-56, which discloses timing out an execution).

Claims 32-37 are computer-readable medium versions of the method of claims 1-6, respectively. Since the disclosure of Hsu et al. is embodied on a computer-readable medium, claims 32-37 are rejected using the same art and rationale as relied upon in the rejection of claims 1-6, respectively.

As per claims 38 and 39, claims 38 and 39 are computer-readable medium versions of the method of claims 28 and 29, respectively. Since the disclosure of Hsu et al. is embodied on a

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computer-readable medium, claims 38 and 39 are rejected using the same art and rationale as relied upon in the rejection of claims 28 and 29, respectively.

As per claim 40, Hsu et al. discloses a method of executing a transaction having an associated transaction boundary and a workflow action, wherein the workflow action has an action state and a compensation parameter associated therewith, the method comprising:

recognizing a transaction boundary associated with the transaction (See abstract, column 1, lines 15-31, column 14, lines 1-18, which discloses transaction processing. See also See column 3, lines 1-25, column 6, lines 20-35, column 8, lines 30-45, column 11, lines 33-62); and selectively compensating at least a first workflow action according to the transaction boundary and the compensation parameter based on abortion of a second action (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, wherein a workflow action is compensated).

As per claim 42, Hsu et al. teaches selectively compensating at least a first action according to the transaction boundary and the compensation parameter upon abortion of a second action, and further according to the action state associated with the first action (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, wherein when a second action is aborted, the compensation routines are enacted, for the aborted action as well as previously enacted actions).

As per claim 43, Hsu et al. discloses selectively compensating at least a first action according to the transaction boundary and the compensation parameter upon abortion of a second action, if the first action has committed (See column 7, lines 8-25, column 13, lines 25-40 and

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50-60, column 14, lines 1-20, wherein when a second action is aborted, the compensation routines are enacted for the aborted action as well as previously enacted actions).

As per claim 44, Hsu et al. teaches wherein the compensation step further comprises instantiating at least one object (See column 7, lines 8-25).

As per claim 46, Hsu et al. discloses a computer-readable medium having computer-executable instructions for:

executing a schedule, the schedule comprising a schedule state, at least one workflow action, and at least one transaction with an associated transaction boundary, the workflow action including an action state and a compensation parameter associated therewith (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, which discloses transactions and states with compensation parameters. See also column 3, lines 1-25, column 6, lines 20-35, column 8, lines 30-45, column 11, lines 33-62, column 12, lines 1-22, wherein workflow events are managed by the system and the actions of each event are instantiated when input event signals are received);

recognizing the transaction boundary within the schedule (See abstract, column 1, lines 15-31, column 14, lines 1-18, which discloses transaction processing. See also See column 3, lines 1-25, column 6, lines 20-35, column 8, lines 30-45, column 11, lines 33-62); and

selectively compensating at least a first workflow action within the schedule according to a transaction boundary within the schedule, and a compensation parameter associated with the first action based on abortion of a second workflow action (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, wherein a workflow action is compensated, the compensation routines are enacted for the aborted action as well as previously enacted actions).

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Claims 48-49 are computer-readable medium versions of the method of claims 42-43, respectively. Since the disclosure of Hsu et al. is embodied on a computer-readable medium, claims 48-49 are rejected using the same art and rationale as relied upon in the rejection of claims 42-43, respectively.

Claim 50 recites substantially similar limitations to claim 1 and is therefore rejected using the same art and rationale relied upon above.

As per claim 51, Hsu et al. teaches a schedule having a schedule state, a workflow action with an associated action state, and at least one inter-business transaction with a transaction boundary, a compensation parameter, a compensation routine, and a transaction state associated therewith, a method of selectively compensating the transaction during the execution of a schedule comprising:

determining the action state of the workflow action (See column 3, lines 10-25, column 5, lines 23-30 and 60-67, column 8, lines 30-45; column 9, lines 10-25; column 13, lines 25-40 and 50-60);

if the action state is aborted, determining the relationship of the workflow action and the transaction based on a transaction boundary (See abstract, column 1, line 15-30, column 7, lines 5-25 and 50-60, column 14, lines 1-20);

if the action state is aborted, and if the workflow action and transaction are related according to the transaction boundary, determining the transaction state of the transaction (See abstract, column 1, line 15-30, column 7, lines 5-25 and 50-60, column 14, lines 1-20);

if the action state is aborted and if the workflow action and the transaction are related according to the transaction boundary, and if the transaction state is committed, performing an

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operation according to the compensation routine associated with the transaction (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, wherein when a second action is aborted, the compensation routines are enacted for the aborted action as well as previously enacted actions).

As per claim 52, Hsu et al. teaches a schedule having a schedule state, first and second transactions with associated transaction boundaries, transactions stated, compensation parameters, and compensation routines, and first and second workflow actions with associated action states, compensation parameters, and compensation routines, a method of selectively compensating a first workflow action or transaction during the execution of a schedule comprising:

determining the state of one of the second workflow action and the second transaction (See column 3, lines 10-25, column 5, lines 23-30 and 60-67, column 8, lines 30-45, column 9, lines 10-25, column 13, lines 25-40 and 50-60);

if the state of one of the second workflow action and the second transaction is aborted, determining the relationship of the first workflow action and the transaction with the second workflow action and transaction based on a transaction boundary (See abstract, column 1, line 15-30, column 7, lines 5-25 and 50-60, column 14, lines 1-20);

if the state of one of the second workflow action and the second transaction is aborted, and one of the first workflow action and transaction are related to one of the second workflow action and transaction according to the transaction boundary, determining the state of one of the first workflow action and transaction (See abstract, column 1, line 15-30, column 7, lines 5-25 and 50-60, column 13, lines 25-40 and 50-60, column 14, lines 1-20); and

if the state of one of the second workflow action and the second transaction is aborted and if one of the first workflow action and transaction are related to one of the second workflow action and the transaction according to the transaction boundary, and if the state of one of the first workflow action and transaction is committed, performing an operation according to the compensation routine associated with one of the first workflow action and transaction (See column 7, lines 8-25, column 13, lines 25-40 and 50-60, column 14, lines 1-20, wherein when a second action is aborted, the compensation routines are enacted for the aborted action as well as previously enacted actions).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 23-25, 27, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. (U.S. 5,581,691).

As per claim 23, Hsu et al. teaches editing tools to define workflows (See column 4, lines 54-60) and adjusting start conditions for an action in the workflow when resources are not available (See column 5, lines 50-60, column 7, lines 25-40). However, Hsu et al. does not expressly disclose adjusting at least one of the latency thresholds based on a variable.

Hsu et al. discloses a workflow management system including editing tools and the ability to create actions in a workflow. Hsu et al. further discloses a latency threshold, which identifies the input conditions that need to be satisfied. It is old and well known to allow a user

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to update and edit a stored plan (such as a workflow) after it has begun to execute in order to compensate for changes that have occurred or unpredicted circumstances. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow a user to adjust the latency thresholds in order to more efficiently allow the workflow to avoid timeouts, for example, by allowing the user to change the parameters of the system.

As per claim 24, Hsu et al. discloses wherein the variable is related to system resource utilization (See column 5, lines 50-60, column 7, lines 25-40, wherein resources are dynamically allocated, which discusses available and ready system resources).

Claim 25 recites substantially similar limitations to claim 23 and is therefore rejected using the same art and rationale set forth above.

As per claim 27, Hsu et al. teaches wherein the schedule state comprises a data structure and active data (See column 13, lines 25-50). Hsu et al. further discloses a database schema (See column 6, lines 20-35). However, Hsu et al. does not expressly disclose a schedule location.

Hsu et al. discloses a data structure and a database schema for the workflow management system. It is old and well known that databases have defined locations in which they store specific data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include schedule location information concerning where the information about the workflow is stored in the database of the system of Hsu et al. in order to more efficiently store and retrieve data of the system.

As per claim 45, Hsu et al. does not expressly disclose that the compensation step further comprises sending a message. Examiner takes official notice that it is old and well known in workflow applications to alert a user as to occurrences of the system. Therefore, it would have

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been obvious to one of ordinary skill in the art at the time of the invention to send a message to the user of Hsu et al. in order to increase the usability of the system by alerting the user of actions being performed in the system.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Harvey et al. (U.S. 6,519,568) discloses a system that controls workflow ordering.

Du et al. (U.S. 6,041,306) discloses a workflow management system that assigns resources to a task and comprises a resource manager.

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Rosenfeld et al. (U.S. 5,999,910) teaches a workflow management system that can execute or suspend processing of workflow items.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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November 26, 2006

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